

Listing of the Claims

1. -23. Cancelled.
24. (Currently amended) A vector containing the DNA sequence of an isolated DNA of claim 15 claim 53.
25. (Currently amended) A transformant ~~having containing~~ the DNA sequence of an isolated DNA of claim 15 claim 53 or a ~~vector containing the DNA of claim 15 which is a plant cell or plant tissue of a Brassica plant or a transformed Brassica plant.~~
26. (Currently amended) The transformant of claim 25 which is a transformed Brassica plant.
27. Canceled
28. (Currently amended) A transformant having a cytoplasmic male sterile gene wherein ~~a partial or full length~~ the DNA sequence of an isolated DNA of claim 15 claim 53 is introduced with an induction type promoter ~~to~~ into a cell of the transformant wherein the promoter is positioned with respect to the DNA sequence to enable transcription thereof in the transformant, ~~having~~ DNA of claim 15, so that the transformant can regulate an expression of the cytoplasmic male sterile gene, wherein the transformant is a cell or tissue of a Brassica plant or a transformed Brassica plant.
29. (Currently amended) A method for maintaining ~~the a~~ cytoplasmic male sterile line by using the transformant of claim 28.
- 30.-31. Canceled

32. (Currently amended) A plant-transforming vector which comprises a promoter DNA having an ability of transcribing an mRNA at least in an anther and the DNA sequence of an isolated DNA of claim 15 claim 53,
wherein the promoter is positioned with respect to the DNA sequence to
enable transcription thereof.

33. Canceled

34. (Currently amended) A transformed Brassica plant having the vector of claim 32.

35.-36. Canceled

37. (Currently amended) A seed, pollen, protoplast, cell, vegetative portion, hypocotyl, gamete or root, which is obtained from the transformant of claim 25 and which comprises the DNA sequence of said isolated DNA or a
transformed plant having a plant-transforming vector which comprises a
promoter DNA having an ability of transcribing an mRNA at least in an
anther and the DNA encoding a protein involved in restoration of the
cytoplasmic male sterile individual to fertility which has 14 or more
pentatricopeptide repeat (hereafter may be abbreviated to PPR) motifs,
wherein a group of the motifs is divided into 3 or more blocks, each of the
individual blocks has at least 2 or more PPR motifs, and the block in a
carboxyl terminal (C terminal) side has 4 PPR motifs.

38. (Currently amended) A transformant of claim 25 which is a Brassica
Brassica napus plant, wherein a glucosinolate content in the seed which is
obtained from the transformant of claim 25 being a transformant of the
Brassica plant or from a transformed plant satisfies the Canola standard
has a glucosinolate content of 30 micromole/g seed or less said transformed
plant having a plant-transforming vector which comprises a promoter DNA

~~having an ability of transcribing an mRNA at least in an anther and the DNA encoding a protein involved in restoration of the cytoplasmic male sterile individual to fertility which has 14 or more pentatricopeptide repeat (hereafter may be abbreviated to PPR) motifs, wherein a group of the motifs is divided into 3 or more blocks, each of the individual blocks has at least 2 or more PPR motifs, and the block in a carboxyl terminal (C terminal) side has 4 PPR motifs.~~

39. (Currently amended) A seed which is obtained from the transformant of the ~~Brassica~~ *Brassica napus* plant of claim 38 and which comprises the DNA sequence of said isolated DNA.
40. (Currently amended) A method for producing a hybrid plant seed of a Brassica plant having fertility restoration ability, produced by crossing a mother, which is wherein a cytoplasmic male sterile line plant is used as a mother, with a pollen parent, which is the transformed plant of claim 35, 36 or 38 as a fertility restoring line plant, is used as a pollen parent, and both are crossed which is a transformed plant of claim 26 and wherein the seed comprises a DNA sequence encoding the protein having the amino acid sequence of SEQ ID NO:3.
41. (Currently amended) The method for producing a hybrid plant seed according to claim 40, wherein the cytoplasmic male sterile line plant of said mother is a cytoplasmic male sterile hybrid line derived from Ogura or Kosena radish.
42. Cancelled
43. (Currently amended) The hybrid plant seed of a ~~Brassica~~ plant of claim 42 claim 41, wherein the Brassica plant belongs to the genus species *Brassica napus*.

44. (Currently amended) The hybrid plant seed of the plant belonging to the genus Brassica according to claim 42 claim 43, wherein the a glucosinolate content in the seed satisfies the Canola standard is 30 micromole/g seed or less.

45.-46. Canceled

47. (Currently amended) A seed, pollen, protoplast, cell, vegetative portion, hypocotyls hypocotyl, gamete, or root, which is obtained by planting and growing the hybrid plant seed of claim 42 claim 40.

48.-52. Canceled

53. (Currently amended) The DNA of claim 15 isolated DNA of claim 59 encoding the protein having the amino acid sequence of SEQ ID NO[[.]]:3.

54. (Currently amended) The isolated DNA of claim 53 having the nucleotide sequence of SEQ ID NO[[.]]:1 or SEQ ID NO. 2.

55.-58. Canceled

59. (New) An isolated DNA which encodes a protein involved in restoration of a cytoplasmic male sterile individual to fertility selected from the group consisting of:

(1) an isolated DNA which encodes a protein having the amino acid sequence of SEQ ID NO: 3;

(2) an isolated DNA which encodes a protein having an amino acid sequence that is 92% or more homologous to the amino acid sequence of SEQ ID NO:3;

- (3) an isolated DNA which encodes a protein having an amino acid sequence wherein 1 to 20 amino acids are deleted, added and/or substituted in the amino acid sequence of SEQ ID NO:3;
- (4) an isolated DNA having 95% or higher homology to a DNA sequence encoding a protein having the amino acid sequence of SEQ ID NO:3; and
- (5) an isolated DNA which hybridizes to a DNA sequence encoding a protein having the amino acid sequence of SEQ ID NO:3 under stringent hybridization conditions where hybridization is performed at 65 °C in the presence of 0.7-1.0 M NaCl followed by washing using 0.1 to 2 X SSC solution at 65 °C.

60. (New) An isolated DNA of claim 59 selected from the group consisting of:

- (1) an isolated DNA which encodes a protein having the amino acid sequence of SEQ ID NO: 3; and
- (2) an isolated DNA which encodes a protein having an amino acid sequence that is 92% or more homologous to the amino acid sequence of SEQ ID NO:3.

61. (New) The isolated DNA of claim 59 selected from the group consisting of:

- (1) an isolated DNA which encodes a protein having an amino acid sequence wherein 1 to 20 amino acids are deleted, added and/or substituted in the amino acid sequences of SEQ ID NO:3; and
- (2) an isolated DNA having 95% or higher homology to a DNA sequence encoding a protein having the amino acid sequence of SEQ ID NO:3.

62. (New) The isolated DNA of claim 59 which encodes a protein having an amino acid sequence that is 92% or more homologous to the amino acid sequence of SEQ ID NO:3.
63. (New) The isolated DNA of claim 59 which encodes a protein having an amino acid sequence which has 95% or higher homology to the amino acid sequence of SEQ ID NO:3.
64. (New) The isolated DNA of claim 59 which encodes a protein having an amino acid sequence which has 97% or higher homology to the amino acid sequence of SEQ ID NO:3.
65. (New) The isolated DNA of claim 59 which encodes a protein having an amino acid sequence wherein 1 to 20 amino acids are deleted, added and/or substituted in the amino acid sequence of SEQ ID NO:3.
66. (New) The isolated DNA of claim 65 wherein the amino acid sequence of the protein wherein 1 to 20 amino acids are deleted, added and/or substituted in the amino acid sequence of SEQ ID NO:3 conforms to the consensus sequences of SEQ ID NO:26, or SEQ ID NO:27
67. (New) The isolated DNA of claim 59 which encodes a protein having an amino acid sequence wherein 1 to 15 amino acids are deleted, added and/or substituted in the amino acid sequences of SEQ ID NO:3.
68. (New) The isolated DNA of claim 59 which encodes a protein having an amino acid sequence wherein 1 to 10 amino acids are deleted, added and/or substituted in the amino acid sequences of SEQ ID NO:3.

69. (New) The isolated DNA of claim 59 which encodes a protein having an amino acid sequence wherein 1 to 5 amino acids are deleted, added and/or substituted in the amino acid sequences of SEQ ID NO:3.
70. (New) The isolated DNA of claim 59 having 95% or higher homology to a DNA sequence encoding a protein having the amino acid sequence of SEQ ID NO:3.
71. (New) The isolated DNA of claim 59 which hybridizes to a DNA sequence encoding a protein having the amino acid sequence of SEQ ID NO:3 under stringent hybridization conditions where hybridization is performed at 65 °C in the presence of 0.7-1.0 M NaCl followed by washing using 0.1 to 2 X SSC solution at 65 °C.
72. (New) The isolated DNA of claim 71 which hybridizes to a DNA sequence encoding a protein having the amino acid sequence of SEQ ID NO: 3 wherein hybridization is performed at 65 °C in the presence of 1.0 M NaCl followed by washing the filter using 0.1 XSSC solution.
73. (New) A vector containing the DNA sequence of an isolated DNA of claim 59.
74. (New) A transformant containing the vector of claim 73, which is a plant cell, plant tissue or plant of the genus *Brassica*.
75. (New) A transformant comprising the DNA sequence of an isolated DNA of claim 59, which is a plant cell, plant tissue or plant of the genus *Brassica*.
76. (New) The transformant of claim 75 which is a transformed *Brassica* plant.
77. (New) The transformant of claim 76 which is a *Brassica napus* plant.

78. (New) A seed, pollen, protoplast, cell, vegetative portion, hypocotyl, gamete or root, which is obtained from the transformant of claim 76 and which comprises the DNA sequence of said isolated DNA.
79. (New) A seed, pollen, protoplast, cell, vegetative portion, hypocotyl, gamete or root, which is obtained from the transformant of claim 77 and which comprises the DNA sequence of said isolated DNA.
80. (New) A seed, pollen, protoplast, cell, vegetative portion, hypocotyl, gamete or root of a *Brassica* plant which comprises the DNA sequence of an isolated DNA of claim 59.
81. (New) The seed, pollen, protoplast, cell, vegetative portion, hypocotyl, gamete or root of a *Brassica* plant of claim 80 wherein the *Brassica* plant is a *Brassica napus* plant.
82. (New) A transformant having a cytoplasmic male sterile gene wherein the DNA sequence of an isolated DNA of claim 59 is introduced with an induction type promoter into a cell of the transformant, so that the transformant can regulate expression of the cytoplasmic male sterile gene, wherein the transformant is a plant cell, plant tissue or plant of the genus *Brassica*.
83. (New) The transformant of claim 81 which is a plant cell, plant tissue or plant of the species *Brassica napus*.
84. (New) A method for maintaining a cytoplasmic male sterile line by using the transformant of claim 82.
85. (New) A plant-transforming vector which comprises the DNA sequence of an isolated DNA of claim 59 and a promoter DNA having the ability to

transcribe an mRNA at least in an anther wherein the promoter is positioned with respect to the DNA sequence to enable transcription thereof.

86. (New) A transformed *Brassica* plant having the plant-transforming vector of claim 85.
87. (New) A transformed *Brassica napus* plant having the plant-transforming vector of claim 85.
88. (New) A transformed plant of the species *Brassica napus* containing the plant-transforming vector of claim 85 wherein seed which is obtained from the transformed plant has a glucosinolate content of 30 micromole/g seed or less.
89. (New) The transformed *Brassica napus* plant of claim 88 wherein the glucosinolate content of the seed is 12 micromole/g seed or less.
90. (New) A seed which is obtained from the transformed plant of the species *Brassica napus* of claim 88 and which comprises the DNA sequence of said isolated DNA of the transformed plant.
91. (New) A transformant or transformed plant comprising (1) the DNA sequence of an isolated DNA of claim 59, (2) a vector containing the DNA sequence of said isolated DNA, or (3) a plant-transforming vector containing the DNA sequence of said isolated DNA and a promoter DNA having the ability to transcribe an mRNA at least in an anther, wherein the transformant or transformed plant is homozygous for the protein involving in restoration of a cytoplasmic male sterile plant to fertility encoded by the DNA sequence of said isolated DNA wherein the transformant is a cell or tissue of a *Brassica* plant and the transformed plant is a *Brassica* plant.

92. (New) The transformant or transformed plant of claim 91 wherein the transformant is a cell or tissue of a *Brassica napus* plant and the transformed plant is a transformed *Brassica napus* plant.
93. (New) A transformant or transformed plant comprising (1) the DNA sequence of an isolated DNA of claim 59, (2) a vector containing the DNA sequence of said isolated DNA, or (3) a plant-transforming vector containing the DNA sequence of said isolated DNA and a promoter DNA having the ability to transcribe an mRNA at least in an anther, wherein, when the transformant or the transformed plant is regenerated, the regenerated individual can restore cytoplasmic male sterility to fertility wherein the transformant is a cell or tissue of a *Brassica* plant and the transformed plant is a *Brassica* plant.
94. (New) The transformant or transformed plant of claim 93 wherein the transformant is a cell or tissue of a *Brassica napus* plant and the transformed plant is a transformed *Brassica napus* plant.
95. (New) A hybrid plant seed of a *Brassica* plant having fertility restoration ability which comprises a DNA sequence of an isolated DNA of claim 59.
96. (New) A hybrid plant seed of a *Brassica napus* plant having fertility restoration ability which comprises a DNA sequence of an isolated DNA of claim 59.
97. (New) A bacterial host cell containing the vector of claim 73.
98. (New) The bacterial host cell of claim 97 which is a bacterium belonging to the genus *Escherichia* or *Agrobacterium*.

99. (New) A transformant comprising a vector of claim 24 which is a cell or tissue of a *Brassica* plant or is a *Brassica* plant.

100. (New) The transformant of claim 99 which is a cell or tissue of a *Brassica napus* plant or is a *Brassica napus* plant.

101. (New) The isolated DNA of claim 53 having the nucleotide sequence of SEQ ID NO. 2.